



# UNITED STATES PATENT AND TRADEMARK OFFICE

M-f

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,107	10/05/2001	Stephen F. Sichi	009447	4364

22462 7590 10/24/2006

GATES & COOPER LLP  
HOWARD HUGHES CENTER  
6701 CENTER DRIVE WEST, SUITE 1050  
LOS ANGELES, CA 90045

EXAMINER

TIEU, BINH KIEN

ART UNIT PAPER NUMBER

2614

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**UNITED STATES DEPARTMENT OF COMMERCE****U.S. Patent and Trademark Office**

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

09/972,107

10/05/2001

Sichti et al.

009447

EXAMINER

Tieu

ART UNIT	PAPER
----------	-------

2614

20060915

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner for Patents**

The Examiner's Answer mailed on 09/26/2006 was found errors by a Appeal Specialist. The errors are the missing of insert "(10)" beside "Response to Arguments" and the missing item #11 of "Related Proceedings Appendix." Therefore, please find in the attached supplemental Examiner's Answer with all corrections (items #10 and #11) required by the Appeal Specialist.

**BINH K. TIEU**  
Primary Examiner  
Art Unit: 2614



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/972,107  
Filing Date: October 05, 2001  
Appellant(s): SICH ET AL.

**MAILED**

**OCT 25 2006**

**Technology Center 2600**

VICTOR G. COOPER  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 07/17/2006 appealing from the Office action mailed 03/13/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,020,796	Collar et al.	02-2000
5,649,306	Vannatta et al.	7-1997
6,560,443	Vaisannen et al.	05-2003

**(9) Grounds of Rejection**

The following ground(s) of rejection are application to the appealed claims:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5-15 and 17-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Collar et al. (U.S. Pat. #: 6,020,796).

Regarding claim 1, Collar et al. ("Collar") teaches an transponder system (i.e., communication satellite shown in figure 3), comprising:

an amplifier network having a plurality of amplifiers (i.e., a plurality of amplifiers 9 and 10);

an antenna network, comprising a plurality of antennae (i.e., a plurality of receiving antennae connected on left side of figure 3 as input to amplifiers 9 and 10, col.1, lines 10-13 and col.2, line 55 – col.3, line 12);

a **single rail** output switching network (i.e., *links L.sub.12, L.sub.13, L.sub.15 through L.sub.18 on the output side are eliminated. Therefore, only link L.sub.11 (single ring) is a single rail on the output side in figure 3, or briefly stated in other words, the single ring 8 on*

*the output side in figure 3 read on the single rail output switching network, col.5, lines 17-21),*

including first output switching network switch (i.e., switch shown in figure 4a-4e), selectably coupling one of the amplifiers to one of the plurality of antennae at a first output switching network switch first switch state (i.e., in first switch position or straight through shown in figure 4B) and to a second output switching network switch in a first output switch network switch second switch state (i.e., in second switch position, the switch connects to other ports as shown in figure 4c and 4e);

wherein the second output switching network switch is selectably coupled to a second one of the plurality of antennae in a second output switching network switch first switch state and to a third one of the plurality of antennae in a second output switching network switch second switch state (col.3, lines 20-26 and col.6, lines 6-19).

Regarding claim 2, note col.3, lines 20-26 and lines 46-59; and col.6, lines 6-19.

Regarding claim 3, note col.3, lines 46-59.

Regarding claims 5-9, note col.3, line 60 – col.4, line 10.

Regarding claim 10, note col.1, lines 10-12. It should be understood that there are a plurality of receiving antennae connected to input ports (ports on the left side of figure 3) and a plurality of transmitting antennae connected to outputs (ports on right side of figure 3).

Regarding claim 11, Collar teaches a network, as shown in figure 3, comprising:

an first device network having a plurality of first devices (i.e., input ports on the left side of figure 3);

an section device network having a plurality of second devices (i.e., output ports on the right side of figure 3);

Art Unit: 2614

a single rail output switching network (*i.e., links L.sub.12, L.sub.13, L.sub.15 through L.sub.18 on the output side are eliminated. Therefore, only link L.sub.11 (single ring) is a single rail on the output side in figure 3, or briefly stated in other words, the single ring 8 on the output side in figure 3 read on the single rail output switching network, col.5, lines 17-21*), communicatively coupling any of the second devices with any of the first devices (*i.e., row of switches 8, each switch, as shown in figures 4a-4e, having first port can be connected to one of the plurality of amplifiers 10 and other ports can be connected to an antenna at an output port and neighboring switches of the row 8 (col.3, lines 26), wherein the first device network is an antenna network and the first devices are antennae (i.e., antenna network with antennae being located on the left side of the output row 8 with arrows), and the second device network is an amplifier network and the second devices are amplifiers (i.e., amplifiers 10 on the right side of row 8).*

Regarding claim 12, note col.4, lines 48-67.

Regarding claims 13-15, note col.3, line 60 – col.4, line 10.

Regarding claim 17, note col.1, lines 10-12. It should be understood that there are a plurality of receiving antennae connected to input ports (ports on the left side of figure 3) and a plurality of transmitting antennae connected to outputs (ports on right side of figure 3).

Regarding claim 18, Collar teaches a method of providing a signal to any one of a plurality of output devices, comprising the steps of:

receiving the signal in a first switch;

selectably coupling the signal to a first output device or a second switch via a first switch according to a first switch selection (see figure 4b, col.3, lines 20-22); and

selectably coupling the signal from the first switch to a second output device or a third output device if the signal is not coupled to the first output device via the second switch according to a second switch selection (see Fig. 4c and 4e, col.3, lines 22-33).

Regarding claim 19, note col.3, lines 26-30.

Regarding claim 20, Collar teaches an apparatus for providing a signal to any one of a plurality of output devices, comprising:

a first switch for receiving the signal and for selectably coupling the signal to a first output device or a second switch via the first switch according to a first switch selection (see figures 4a, 4e or 4e);

a second switch for selectably coupling the signal from the first switch to a second output device or a third output device if the signal is not coupled to the first output device via the second switch according to a second switch selection (see figure 4b, 4c or 4e, col.3, lines 20-22; col.6, lines 6-19).

Regarding claim 21, note col.3, lines 26-30.

Regarding claim 22, Collar teaches an apparatus for providing a signal to any one of a plurality of output devices, comprising:

means for receiving the signal;

means for selectably coupling the signal to a first output device or a second selectably coupling means (see figure 4b, col.3, lines 20-22), wherein the second selectably coupling means selectably coupling the signal from the first selectably coupling means to a second output device or a third output device if the signal is not coupled to the first output device (see Fig. 4c and 4e, col.3, lines 22-33).



Regarding claim 23, note col.3, lines 26-30.

Regarding claims 24-26, Collar teaches the switching means in figure 3 can be rearranged with elimination of its rings or links as discussed above. After the switching means was rearranged, only row 8 of switches exists as output ring or single rail. Thus, only one switch, e.g., switch.8.sub.1, is directly connected between one of amplifiers 10 and an antenna at one of the output ports (arrow).

3. Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Vannatta et al. (U.S. Pat. #: 5,649,306).

Regarding claim 18, Vannatta et al. ("Vannatta") teaches a network, as shown in figure 5, comprising:

Receiving the signal in a first switch (i.e., receiving a signal from one of input antennae 106, 112 and 113 as shown in figure 5);

selectably coupling the signal to a first output device or a second switch via a first switch according to a first switch selection (i.e., selecting connecting the received signal to either output speaker phone 178, or sensor 199 for incoming voice signal);

selectably coupling the signal from the first switch to a second output device or a third output device if the signal is not coupled to the first output device via the second switch according to a second switch selection (i.e., selectively coupling the received signal to one of output devices of speaker phone 178, sensor and microphone via switches 121 and 130).

Regarding claim 20, the limitations of the claim are rejected with the same reasons set forth in claim 18 above.

Art Unit: 2614

4. Claims 18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Vaisannen et al. (U.S. Pat. #: 6,560,443).

Regarding claim 18, Vaisselle et al. ("Vaisannen") teaches a network, as shown in figure 1, comprising:

receiving the signal in a first switch (i.e., receiving a signal from one of input antennae "ANT1" and "ANT2" via one of switches "SW1" and "SW2");

selectably coupling the signal to a first output device or a second switch via a first switch according to a first switch selection (i.e., selecting connecting the received signal to either output devices of "BT" 12 and "WLAN" 11);

selectably coupling the signal from the first switch to a second output device or a third output device if the signal is not coupled to the first output device via the second switch according to a second switch selection (i.e., selectively coupling the received signal to one of output devices of "BT" 12 and "WLAN" 11 via one or both of switches "SW1" and "SW2").

Regarding claim 20, the limitations of the claim are rejected with the same reasons set forth in claim 18 above.

**(10) Response to Arguments**

Appellants' arguments filed on 07/17/2006 have been fully considered but they are not persuasive.

(I) The appellant argued, on page 6, that Coller reference disclosed "...a rather traditional *dual rail* switching network, nor the *single rail* network with the connectivity in claim 1..." (Emphasis added)

The Examiner respectfully disagrees with the Appellants' arguments stated above. According to the Specification, page 7, discloses the "dual rail" as "...The channel filter 714 output is provided to a *first* rail 718 of a TWTA *redundancy* ring. The *redundancy* ring also comprises a *second* rail 720. The *dual rail redundancy* ring is used to assure that a complete failure of the elements within the ring (in this example, the dual driver power conditioners or dual drive amplifier 722" can be ameliorated by having to switch only one failed TWTA per ring..." (Emphasis added). It is clearly to understand that the "dual rail" is two rails with the same elements or duplicated to each other's, e.g., having the dual driver power, dual driver amplifier, etc. Therefore, the Appellants argued that the rings 7 and 8 in figure 3 of the Collar reference as "dual ring" or "dual rail" are incorrectly because rings 7 and 8 having structure as well as elements are different. They cannot perform as a *dual rail redundancy* ring for (function of) using to assure that a complete failure of the elements within the ring. Thus, the ring 8 is a *single* output switching ring or single output rail switching network, and the ring 7 of switches is just intermediate switches, which is not composited as a redundancy ring or rail.

(II) In response to the appellants' arguments on page 6, wherein the appellants stated as followings:

***“...In response, The Final Office Action states that the teachings of col.5, lines 17-21...This statement incorrectly equates rings with rail. The two structure are not the same...”***

The Examiner respectfully disagrees with the appellants' arguments as stated above. First of all, the limitations of claim 1 do **not** clearly define the structure of single rail, e.g., how its elements are composed, connected, etc. The structure of single rail is described on page 8 as a single rail switching ring 850 and 818 in figure 8. Therefore, the ring 8 in the Coller reference is read on the single rail as recited in claim 1 since ring 7 and ring 8 are not a **dual** rail **redundancy** ring, as required by the Specification.

(III) In response to the appellants' arguments on page 14, wherein the appellants stated as followings:

***“...Claim 18 recites the step of selectively coupling the signal to a first output (device) or a second switch via a first switch according to a first switch selection. The collar reference discloses a system in which the signal...Further, the Collar reference discloses selectively coupling the signal from the first switch to yet another switch (not an output device)...”*** (Emphasis added)

The Examiner respectfully disagrees with the appellants' arguments as stated above. First of all, the phrases ***“a first output or a second switch”*** having the Boolean “or” in between. It means that the input signal is coupled to one of first output and second switch should meet the limitation of the claim. Therefore, Collar ***reference discloses selectively coupling the signal from the first switch to yet another switch*** (not necessary to couple to an output device because of Boolean “or”), which meet the limitation of the claim. Second, the nature of the switches are clearly disclosed in figure 4, column 3, lines 13-59. Therefore, it is believed that the example

described in column 3, lines 46-53 teaches limitations of "...coupling the signal from the first switch to an output device, e.g., the second TWTA (redundant)."

With respect to claims 20, 21 and 25, the appellants argued on page 15 the same as in claim 18. Therefore, the response of claim 18 is applied equally to the arguments of claims 20, 21 and 25.

With respect to claims 22, 23 and 26, the appellants also argued on page 15 the same as in claim 20. Therefore, the response of claim 20 is applied equally to the arguments of claims 22, and its dependent claims 23 and 26.

(IV) In response to the appellants' arguments on page 16 in respect to rejection of claims 18 and 20 under Vannatta wherein the appellants stated as followings:

***"...However, the switch 121 operates to couple either antenna 112 or antenna 120 to switch 130. It does not provide the signal from 112 to either an output device or a switch, as recited in claim 18.***

***Further, the input signal is never connected to an output device at all. Instead, it is provided..."***

The appellants, again, are reminded that claims 18 and 20 each recited the Boolean "or" in the phrase of "***a first output or a second switch***" as discussed above. Therefore, Vannatta reference discloses the switch 121 operates to couple either antenna 112 or antenna 120 to switch 130. It is not necessary to provide the signal from 112 to either an output device or a switch in order to meet the limitation as recited in claim 18 because it recited the Boolean "or".

(V) In response to the appellants' arguments on page 17 in respect to rejection of claims 18 and 20 under Vaisannen reference. Because claims 18 and 20 recited the Boolean "or," the claims limitations are, again, interpreted differently from the appellants' arguments. Therefore,

Art Unit: 2614

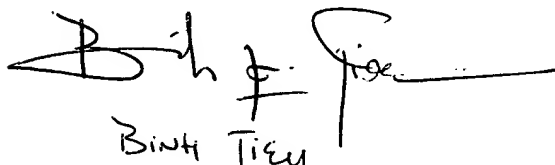
the Examiner's responses as stated in sections (III) and (IV) above are applied equally to these arguments.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.


For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Binh Tieu  
Primary Examiner  
Date: September 15, 2006

Conferees:



DUC M. NGUYEN  
SUPERVISORY PRIMARY EXAMINER  
TECHNOLOGY CENTER 2600



CURTIS KUNZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

GATES & COOPER LLP

Howard Hughes Center

6701 Center Drive West, Suite 1050

Los Angeles, California 90045